

ABSTRACT OF THE DISCLOSURE

A composite vibration device includes a piezoelectric element defining a vibrating member, which is made of a material having a first acoustical impedance, first and second reflecting layers are connected to respective end surfaces of the piezoelectric element, each of the layers are made of a material having a second acoustical impedance lower than the first acoustical impedance, and first and second supporting members. Each of the first and second supporting members is made of a material having an acoustical impedance higher than the second acoustical impedance and is connected to the outer surface of each of the first and second reflecting layers. Vibrations propagated from the piezoelectric element are reflected at the interfaces between the reflecting layers and the supporting members.

TOGETHER